Remarks/Arguments

The Applicant has carefully considered the final Office action dated January 3, 2011, and submits this response. In the response, the Applicant is amending the specification to correct a typographical error in the spelling of "1-bromo-3-chloro-5.5-dimethylhydantoin (BCD)." The Applicant is also amending the claims of the application to more clearly recite the invention. Specifically, the Applicant is amending the claims to include the ability of the treated fibers to "store the anti-bacterial compound inside the treated fibers" so that the filter made from the fibers "eliminates Legionella Pneumophila without releasing the anti-bacterial compound," as described in paragraph [0054] of the published application. The Applicant is also adding new dependent claims 70-77, which claim the specific anti-bacterial compound and a biocide, which were previously recited in the independent claims.

Even in light of these amendments, the Applicant respectfully asserts that he is not adding new matter to the application. Accordingly, the Applicant requests that the Examiner acknowledge acceptance of these amendments in the next Office communication.

Statement of Substance of Interview

The Applicant would like to thank Examiner Choi for meeting with the Applicant, Ms. Carlota Espuelas Azofra of Logrotex, and Applicant's counsel Ralph Dowell and Alyssa Finamore on May 10, 2011. The Applicant appreciates his time and cooperation in facilitating the prosecution of the application.

During the interview, the Applicant and Ms. Espuelas Azofra explained how Logrotex was the first company to develop a filter that could effectively trap Legionella bacteria. When Logrotex first developed the filter, there was not even a laboratory equipped to handle and run tests with this particular bacterium. Once Logrotex did find such a laboratory to test its filter, the test results showed that the filter effectively traps the Legionella bacteria over a period of time, such as thirty days.

This efficacy is due to the filter being composed of fibers each having an anti-bacterial compound that is "integrated into all of the body and core of said fiber so that the treated fibers store the anti-bacterial compound inside the treated fibers," as recited in the amended claims. Since the fibers store the anti-bacterial agent, the filter "eliminates Legionella Pneumophila without releasing the anti-bacterial compound," as also recited in the amended claims.

Unlike the claimed fibers, the Applicants pointed out that

the fibers disclosed in the Rohrbach patent have an internal cavity 22 for containing antimicrobial agents therein. These cavities 22 enable the anti-microbial agents "to leach or diffuse out." Consequently, not only are the anti-microbial agents contained in the cavity, as opposed to the support materials of the fibers so the agent is integrated into the body of the fibers, but the fibers of the Rohrbach media cannot store the anti-microbial compound. To the contrary, the Rohrbach patent expressly teaches that the fibers allow the anti-microbial agent to diffuse out.

After the Applicant's explanation of the differences in structure and capabilities between the fibers of the present invention and the fibers disclosed in the Rohrbach patent, the Examiner asked how the Applicant's fiber is different from a fiber formed from conventional fiber filaments mixed and extruded with an antimicrobial agent. In reply, the Applicant explained that mixing conventional filaments with anti-bacterial agents and then forming a fiber via extrusion would not work. The extrusion process would undermine the anti-bacterial properties, and as a result, the fibers would not be effective against Legionella.

In addition to the differences between the teachings of the Rohrbach patent and the present invention discussed during the interview, the Applicant believes there are many other

distinctions between the Applicant's invention and the prior art. Due to the Examiner's limited schedule, the Applicant did not have an opportunity to discuss these additional differences, which not only highlight the novelty of the present invention, but also emphasize the importance of the Applicant's filters. Accordingly, the Applicant is attaching his comments regarding additional differences between the present invention and the prior art as an appendix hereto.

Claim Rejections – 35 USC § 112

The Examiner is rejecting claims 56, 57, 62-65, and 67-69 under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement. Specifically, the Examiner points out there is no support in the specification for the compound "1-bromo-3-chloro-5.5-dimethylhydantoin" set forth in these claims.

As the Examiner acknowledges in the Office action, the application as filed included a misspelling in the name of this compound and improperly recited the compound as "1-bromo-3-chloro-5.5-dimethyldanton (BCD)." The Applicant has amended the specification to properly recite the compound as "1-bromo-3-chloro-5.5-dimethylhydantoin (BCD)." In light of this amendment, the specification clearly provides support for the claimed

compound, and the Applicant respectfully requests that the Examiner withdraw this rejection.

Claim Rejections – 35 USC § 103

The Examiner is rejecting claims 56, 57, 62-65, and 67-69 as being unpatentable over Rohrbach (U.S. patent no. 6,514,306) in view of Falder (U.S. publication no. 2003/0031687), Wolf (U.S. patent no. 2,920,997), and Farina (U.S. patent no. 5,6903,941). However, the Examiner has not met the burden of establishing a prima facie case of obviousness because the combined teachings of the Rohrbach, Falder, Wolf, and Farina references do not teach or suggest every claim limitation of the amended claims. Thus, as discussed in detail below, the Applicant respectfully solicits withdrawal of this rejection.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference or combination of prior art references, must teach or suggest all the claim limitations.

In this case, the combined teachings of the Rohrbach,

Falder, Wolf, and Farina references do not teach or suggest every claim limitation, namely a filter made from treated fibers each having an anti-bacterial compound "integrated into all of the body and core of said fiber so that the treated fibers store the anti-bacterial compound inside the treated fibers" so that the filter "eliminates Legionella Pneumophila without releasing the anti-bacterial compound." As the Examiner points out, the Rohrbach patent discloses an antimicrobial fibrous media made from container members 20 which are previously treated with an anti-bacterial compound, such as TRICLOSAN™, wherein the container members are formed from thermoplastic polymers. Consequently, the Examiner asserts that the Rohrbach patent discloses the claimed invention, but for the claimed biocide.

In reply to the Examiner's assertion, the Applicant respectfully points out that the Rohrbach patent does not disclose every claim limitation, namely a filter composed of fibers each having an anti-bacterial compound "integrated into all of the body and core of said fiber so that the treated fibers store the anti-bacterial compound inside the treated fibers" such that the filter "eliminates Legionella Pneumophila without releasing the anti-bacterial compound." As discussed during the interview, the Rohrbach fibers do not have these capabilities. To the contrary, the Rohrbach fibers are intended to enable the

anti-bacterial agent to diffuse and leach out from the fibers.

While these capabilities may be considered functional recitations, the Applicant respectfully points out that a "patent applicant is free to recite features of an apparatus either structurally or functionally." *In re Schreiber*, 128. F.3d 1473 (Fed. Cir. 1997) *citing In re Swinehart, 439 F.2d 210, 212 (CCPA 1971).* The Applicant also acknowledges that when defining a claim element in terms of its function, the Applicant has the burden "to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on." *Id.*

In this case, the Applicant can easily prove that the fibers of the Rohrbach patent are not able to "store the anti-bacterial compound inside the treated fibers" and eliminate Legionella "without releasing the anti-bacterial compound" because the Rohrbach references expressly teaches the opposite characteristic. The Rohrbach patent discloses fibers treated with antimicrobial agents which "are able to leach or diffuse out." Since the fibers of the Rohrbach patent do not and cannot store an anti-baterial compound and eliminate Legionella Pneumophila without releasing the anti-bacterial compound, the Rohrbach patent does not teach these claimed capabilities and thus, does not disclose every element of the amended claims.

Like the Rohrbach patent, the Falder, Wolf, and Farina references likewise fail to disclose these claimed capabilities. As the Examiner points out in the Office action, "the prior art combination does not disclose the claimed property." The Examiner goes on to state "it is reasonable for one of ordinary skill in the art to expect that the claimed anti-bacterial properties naturally flow from the treated fibers of the prior art combination, since the prior art combination teaches an invention with a substantially similar structure and chemical composition (nonwoven fabric comprising the claimed fibers and TRICLOSAN™ anti-bacterial composition and the claimed biocide integrated into the bod and core of the fiber) as the claimed invention. However, the Examiner acknowledges, the "burden is on the Applicant to prove otherwise."

Since the express teachings of the Rohrbach reference make clear that the container members 20 are specifically designed to allow the antimicrobial agent to diffuse and leach out from the fiber, the cited prior art does not exhibit the claimed property of storing an anti-bacterial compound within a fiber and eliminating Legionella without releasing the compound. As such, the prior art combination does not disclose every element of the amended claims, and the Applicant respectfully requests withdrawal of this rejection.

In view of the foregoing, the Applicant respectfully requests reconsideration of the rejections set forth in the Office action and hereby solicits favorable consideration and allowance of the claims. Should the Examiner have any questions regarding this response, the amendments submitted herewith, or the allowability of the claims, the Applicant would appreciate if the Examiner would contact the undersigned attorney of record at the telephone number provided below for purposes of facilitating prosecution of this application.

Respectfully submitted,

DOWELL & DOWELL, P.C.

By: /Alyssa Ann Finamore/
Alyssa Ann Finamore
Reg. No. 55,177
Date: July 5, 2011

DOWELL & DOWELL, P.C.
103 Oronoco Street, Suite 220
Alexandria, VA 22314
Telephone - 703 739-9888
Facsimile - 703 739-9889
E-mail - dowell@dowellpc.com
Customer No.: 00293

Comments of the Inventor

I pass some reflections of the Us patent (Rohrbach)

In this patent an air filter and a medical dressing are claimed.

IN the patent, the air filter does not kill the bacteria, however the dressing kills them and moreover prevents odours .

In Rohrbach the filter requires a 50% moisture to begin to release antibacterial.

At the opposite, our filter works by diffusion or aura, does not release particles, and works on either wet and dry.

Antibacterial used in Rohrbach is short-lived in the form in that it is used . While more humidity , more is released.

Ours filter has a life of the fiber duration , it is more and less about 5 / 10 years at the sun with UV treatment.

From Rohrbach is not clear against what type of bacteria is useful this filter, however, I think that the dressings are treated with antibiotic.

And the problem is the releasing of product, which would may affect the sensitivity of the skin.

Our product is certified "Oeko-Tex", this certification indicates that it can be in contact with the skin of a child.

Ours filter is a multi-purpose of antibacterial and biocides filter, that kill multi COMBINATIONS of bacteria.

We attack the biofilm (which is the culture medium of bacterias) and amoebae, which are carriers of legionella.

The amoebae are resistant to disinfectants, they can make a crust, and the Legionellas which are within, come out to the environment alive after a shock treatment.

Rohrbach does not claim utility against Legionella , which is

our main argument.